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(54) Image tracking system and method and observer tracking autostereoscopic display

(57) An image tracking system (2) comprises a video camera (3) or other device for presenting a sequence of images to a processor (4). The images are presented in real time in the form of a sequence of video fields. The processor (4) determines (79) the position of a target image in a preceding image frame, for instance using a template matching technique limited to the region of the image field where the target image may be located. The processor (4) then determines (76) the amount of movement between the preceding field and the next field, for instance by using a differential technique. The updated position of the target image is then formed (77) as the sum of the position of the target image in the preceding field and the amount of movement between the preceding field and the next consecutive field. The position data are supplied (78), for instance, to a window steering mechanism (6) of an autostereoscopic 3D display (7) so that the eyes of an observer (8) can be tracked to ensure autostereoscopic viewing of the display (7) with an enlarged degree of freedom of movement of the observer.

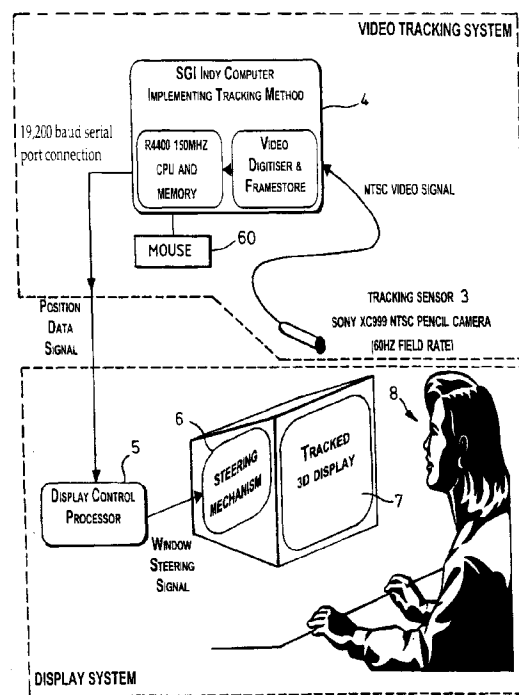


FIG. 16

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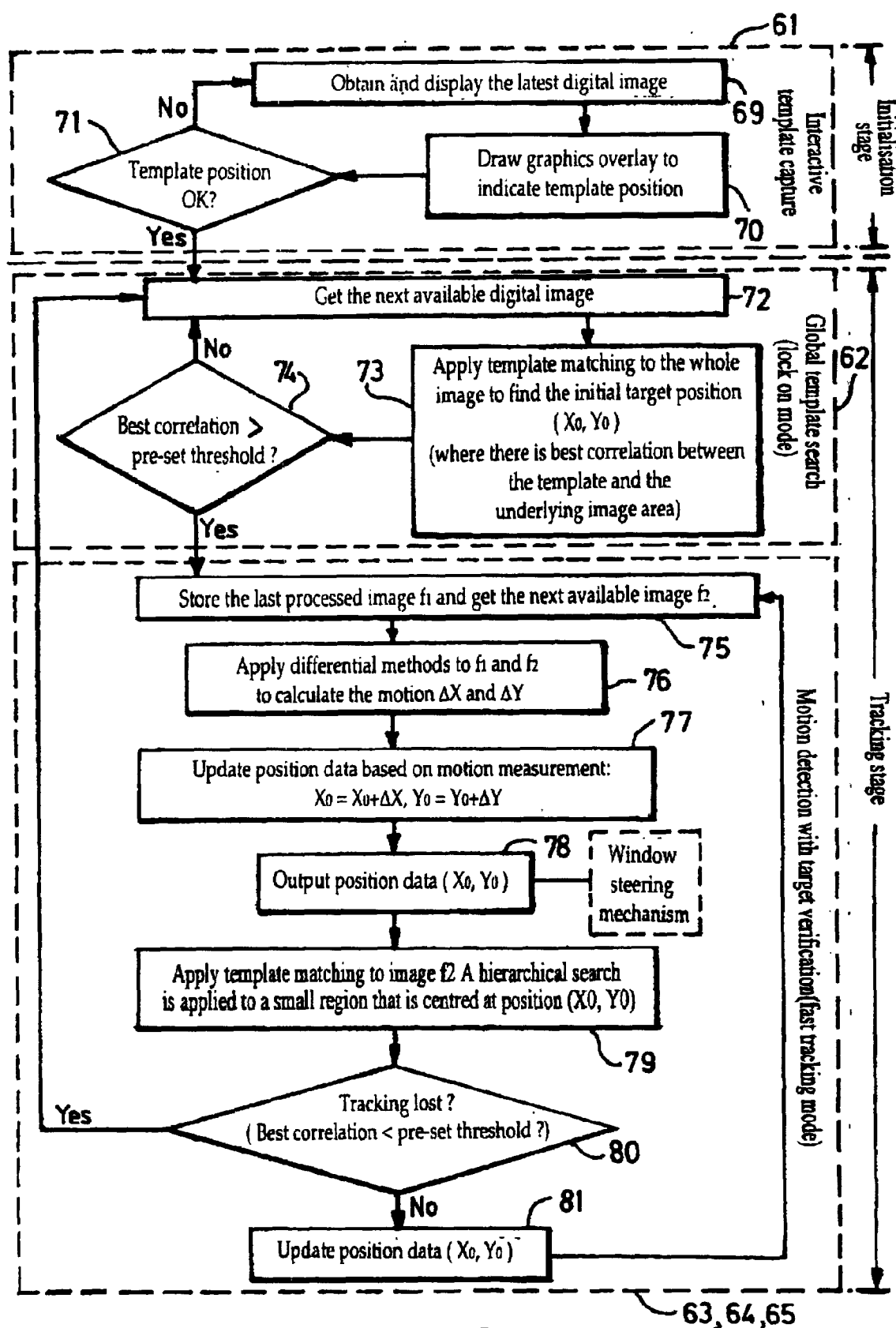


FIG. 18



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EUROPEAN SEARCH REPORT

Application Number
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			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			G06T H04N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 5 November 1999	Examiner Chateau, J-P
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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